IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPELLANT :	Gosse Boxhoorn, *et al.*	CONFIRMATION No.:	3528
SERIAL NUMBER :	10/518,695	EXAMINER:	Rodney Glenn McDonald
FILING DATE :	September 20, 2005	ART UNIT:	1795
TITLE :	METHOD AND APPARATUS FOR MANUFACTURING A CATALYST		

APPELLANT'S REPLY BRIEF UNDER 37 C.F.R. § 41.41

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I. INTRODUCTION

Pursuant to 37 C.F.R. § 41.41, this Reply Brief is being filed within two months of the Examiner's Answer mailed October 14, 2009, (hereinafter "Answer"). This Reply Brief responds to the new issues raised in the Answer. Reference to Appellant's Appeal Brief herein will be made to the Supplemental Appeal Brief filed July 22, 2009 ("the Brief").

II. STATUS OF CLAIMS

Pending: Claims 34-83 are pending.

Withdrawn: Claims 34-50 have been withdrawn.

Canceled: Claims 1-33 are canceled.

Rejected: Claims 51-83 stand rejected.

Objected to: No claims have been objected.

Allowed: No claims have been allowed.

On Appeal: The rejections of claims 51-83 are appealed.

III. GROUNDS OF REJECTIONS TO BE REVIEWED ON APPEAL

A. Claims 51-55, 57, 66, 68, 71, 77, 79, 80, 81, 82, and 83 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 4,871,580 to Schram, *et al.* (hereinafter "Schram") in view of U.S. Patent No. 5,559,065 to Lauth, *et al.* (hereinafter "Lauth"). [Answer, pg. 3];

B. Claims 56, 58, 59, 63, 64, 65, 70, 72, and 73 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Schram in view of Lauth, as applied to claims 51-55, 57, 66, 68, 71, 77, 79, 80, 81, 82, and 83 above, and further in view of Canadian Patent No. 2,297,543 to Loch, *et al.* (hereinafter "Loch"). [Answer, pg. 6];

C. Claims 74-76 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Schram in view of Lauth and Loch, as applied to claims 51-55, 57, 66, 67, 71, 77, 79, 80, 81, 82, and 83 above, and further in view of U.S. Patent No. 4,536,482 to Carcia (hereinafter "Carcia"). [Answer, pg. 9];

D. Claims 60-62, 67, and 78 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Schram in view of Lauth, as applied to claims 51-55, 57, 66, 68, 71, 77, 79, 80, 81, 82, and 83 above, and further in view of Carcia. [Answer, pg. 10]; and

E. Claims 69 and 70 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Schram in view of Lauth, as applied to claims 51-55, 57, 66, 68, 71, 77, 79, 80, 81, 82, and 83 above, and further in view of U.S. Patent No. 3,969,082 to Cairns, *et al.* (hereinafter "Cairns"). [Answer, pg. 11].

III. RESPONSE TO EXAMINER'S ARGUMENTS

A. The rejection of claims 51-55, 57, 66, 68, 71, 77, 79, 80, 81, 82 and 83 under 35 U.S.C. § 103(a) over Schram in view of Lauth.

In the Answer, the Examiner erroneously maintains that:

(i) Schram teaches "sputtering ... first and second deposition material[s]" [Answer, pg 12, ¶ 1; *see also* pg. 13, ¶ 3];

(ii) Schram teaches "contacting the plasma with the at least one sputtering electrode to sputter the substrate with the second deposition material of the at least one electrode."[Answer, pg 12, ¶ 2, pg. 13, ¶¶ 2-3]; and

(iii) "Schram et al.'s apparatus is similar to Applicant's apparatus" [Answer, pg. 12, ¶ 3].

In the Answer, the Examiner does not refute any of Appellant's arguments. Rather, the Examiner restates each of Appellant's arguments with regard to a specific claim feature, and states "it is argued that Schram teach[es]" that claim feature. In support thereof, the Examiner makes repeated citations to passages of Schram, and in a few instances, attempts to briefly clarify his position.

Appellant's previous arguments addressed each of the Examiner's mistaken assertions. [*See* Brief, pgs. 6-11[1]]. Thus, Appellant maintains that the rejection of claim 51 is improper for at least the same reasons provided in the Brief.

In addition, only the citation to column 3, lines 44-61 of Schram in the Answer was previously not mentioned in the Final Office Action, or specifically addressed by Appellant in the Brief. Even so, neither this passage nor any of the other cited

passages of Schram teach what the Examiner assets (i.e., "The solid material freed from the sputtering target 6 mix [*sic*] with the reactant material to from [*sic*] a deposition material on the substrate where the first and second deposition mater are deposited on the substrate.")[2]. For instance, the newly cited passage of Schram merely describes adjusting the plasma jet. The plasma jet, however, is not a first deposition material. [*See* Brief, pg. 7, ¶ 2].

In addition, the Examiner states "... looking at Fig. 1 [of Schram] a plasma jet contacts the sputtering target 6." [Answer, pgs. 12-13]. Yet, as pointed out by Appellant in the Brief, there is simply no illustration in Schram of a plasma jet contacting a sputtering electrode. [*See* Brief, pg. 10].

For at least the reason that the underlying factual basis of the rejection are erroneous, the rejection of at least claims 51 is improper.

In addition, the Examiner erroneously states: "In response to the argument that claims 56, 58, 59, 63, 64, 65, 70, 72 and 73 are allowable for the same reasons that claim 51 is allowable, it is argued that claims 56, 58, 59, 63, 64, 65, 70, 72 and 73 are not allowable for the same reasons claim 51 is not allowable." [Answer, pg. 15(B)]. The Examiner erroneously makes similar assertions with regards to claims 74-76 [Answer, pg. 15(C)], claims 60-62, 67 and 78 [Answer, pg. 15 (D)], and claims 69 and 70. [Answer, pg. 15 (E)].

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1 For the sake of brevity, Appellant will not restate the same arguments made in the Brief.

2 Answer, pg. 7, ¶ 1.

It seems that the Examiner has confused the issues of (i) the patentability of a dependent claim when an independent claim is patentable, with (ii) the separate patentability of dependent claims over an independent claim. For instance, 37 C.F.R. § 1.75(c) states: "Claims in dependent form shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim." Thus, if an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). There is no requisite showing of separate patentability for the dependent claim. On the other hand, just because an independent claim may not be patentable it does not follow that its dependent claim is also unpatentable. Instead, it is the Examiner's burden to separately show that the dependent claim is also not patentable. For instance, a dependent claim may add a feature to the subject matter of the independent claim that separately makes the dependent claim patentable. In fact, MPEP § 707.07(j) specifically addresses this scenario, stating: "If a claim is otherwise allowable but is dependent on a canceled claim or on a rejected claim, the Office action should state that the claim would be allowable if rewritten in independent form."

For at least the reason that the dependent claims may have separate patentability over claim 51, the rejections of at least claims 56, 58, 59, 60-65, 67, 69-70, 72-76 and 78, *per se*, are improper.

B. The rejection of claims 56, 58, 59, 63, 64, 65, 70, 72 and 73 under 35 U.S.C. § 103(a) over Schram in view of Lauth, and further in view of Loch.

The Examiner erroneously maintains that:

> Loch et al. teach utilizing plural gas sources which meets applicant's requirement for a second source. In this instant [*sic*] hydrogen and nitrogen gas source would be the vapor deposition sources. (See Loch et al. Page 5)
>
> [Answer, pg. 14].

As previously pointed out by Appellant at page 13 of the Brief, page 5 of Loch discloses supplying a working gas (i.e., mixture of argon, hydrogen, helium and/or nitrogen) to a *single* spray gun 200. [*See also* Loch, Figure 1]. Each of the gas supplying means is not a separate vapor deposition source, as the gases themselves do not provide for an additional (third) deposition material on the substrate, as claim 56 recites. Rather, Loch discloses that it "is powder P, which is used as coating material." [Loch, pg. 5].

For at least the reason that the underlying factual basis of the rejection is erroneous, the rejection of at least claim 56 is improper.

C. The rejection of claims 74-76 under 35 U.S.C. § 103(a) over Schram in view of Lauth and Loch, and further in view of Carcia.

The Examiner erroneously states: "Carcia teach[es] the carrier material can be a semiconductor material or oxidized semiconductor material. (See Carcia et al, Column 2 lines 56-59; Column 2 lines 66-68)" [Answer, pg.15].

The cited passages of Carcia disclose that the catalyst substrate material may be a refractory material, e.g., oxides, nitrides and carbides, and that the sputtered film is formed of one or more catalytically active metal such as Pt, Pd, Ag, Au Re, Rh, Ru and Ir and a cosputtered support material (preferably an oxide nitride or carbide and is the same material as the substrate material). [*See also* Carcia, col. 3, lines 1-6].

Yet, nowhere do the cited portion of Carcia disclose a carrier material comprising a semiconductor, much less an oxidized semiconductor, as claims 74 and 75 recite. Nor has the Examiner demonstrated that any of these materials are a semiconductor or an oxidized semiconductor material. To be sure, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). The Examiner must provide rationale or evidence to show inherency. MPEP § 2112 IV. Tellingly, the Examiner fails to do so.

For at least the reason that the underlying factual basis of the rejection are erroneous, the rejection of at least claims 74 and 75 is improper.

IV. CONCLUSION

For at least the foregoing reasons, Appellant respectfully appeals to this Honorable Board to promptly reverse the rejections of claims 51-83 and to issue a decision in favor of Appellant, as all of the pending claims are in condition for allowance.

Date: **December 14, 2009**

Respectfully submitted,

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